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Ronald K. Aust
Taylor & Aust, P.C.
12029 E. Washington Street
Indianapolis, IN 46229

EXAMINER

BOSWELL, CHRISTOPHER J

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/647,967
Filing Date: August 26, 2003
Appellant(s): RODRIGUEZ ET AL.

Ronald K. Aust
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed August 18, 2009 appealing from the Office action mailed January 21, 2009.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,925,844	Liu	8-2005
842,834	Hurdle	1-1907

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 8-10, 12-16 and 18-21 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Number 6,925,844 to Liu.

Liu discloses a lockset having a lock mechanism (100) including an actuator (110) having an aperture (112 and 114), an operator (111), and a turn button (200) mounted in the operator (the turn-button of Liu is capable of being mounted in the operator during assembly of the

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lockset), the turn button having a head portion (220), and a shaft (230) having a leading helical end tip (236'''), and means for self-alignment (column 7, lines 19-24) of the shaft with the aperture of the lock mechanism as the shaft is inserted into the aperture, as in claims 1 and 4, as well as the leading helical portion having a plurality of leading helical surfaces (figure 6C) that taper and twist from a transition line of the shaft toward an end of the shaft, as in claims 2, 5, and 9, as well as the plurality of helical surfaces smoothly transition between adjacent helical surfaces (smooth angle between the adjoining sides of the helical surfaces; figure 6C), as in claims 3, 6, and 10, wherein once the leading helical end portion engages the aperture, a rotation of the turn-button effects a corresponding rotation of the rotatable actuator of the lock mechanism (column 7, lines 53-58), as in claim 8.

Liu further discloses a rotation of the turn-button effects a corresponding rotation of the aperture of the lock mechanism (column 7, lines 53-58), as in claims 12 and 13, as well as the aperture of the lock mechanism has a substantially rectangular shape (the aperture has a complementary shape to that of the shaft), as in claims 13, 15 and 18, wherein a number of the plurality of leading helical surfaces is greater than two (at least 3 helical surfaces; figure 6C), as in claims 14, 16 and 19, and the leading helical end portion forms a plurality of side surfaces of the shaft (figure 6C), as in claim 20, where the twist is about a half-turn rotation (figure 6C), as in claim 21.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu, as applied above, in view of U.S. Patent Number 842,834 to Hurdle.

Liu discloses the invention substantially as claimed. Liu discloses a lock cylinder that has a helical keyway that is container within a lock shell. However, Liu does not explicitly disclose the exact environment the lock shell would be employed. Hurdle teaches of a locking assembly having a helical keyway inside of an operator, where the operator is a doorknob (r), in the same field of endeavor for the purpose of providing a compact lock, which cannot be picked and may be attached to a lock having a knob mounted on an actuation spindle (page 1, lines 14-21). It would have been obvious to one with ordinary skill in the art at the time the invention was made to incorporate the locking assembly of Liu into a door knob, as taught by Hurdle, where the shaft of the turn-button would extend from the head portion through the door knob to engage the aperture of the lock mechanism in order to provide a compact lock which cannot be picked and may be attached to a lock having a knob mounted on an actuation spindle.

(10) Response to Argument

Regarding the argument that Liu does not disclose a turn-button mounted in said operator during assembly of said lockset, said turn-button including: a head portion; and a shaft extending from said head portion, said shaft having a leading helical end portion that engages said aperture of said lock mechanism, the examiner respectfully disagrees.

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In response to the argument that Liu does not disclose a turn-button or turnpiece, the examiner reminds the appellant that the examiner must take the broadest reasonable interpretation in light of the specification. Consequently, there is an absence of any definition as to what a turn-button further entails than a component having a head portion and a shaft having a helical end portion that extends from the head portion and engages an aperture of a lock mechanism. Accordingly, Liu discloses a component that has a head and a shaft with a helical end that engages an aperture of a lock mechanism. Additionally, there is no recitation of the term “turnpiece” in the claims.

In regards to the statement (page 15, lines 9-17) that the key of Liu is not mounted in the lock, but rather is removably received in the keyway such that the user can freely insert and remove the key from the keyway, the examiner states that the claims are absent of any recitation of the turn-button being permanently attached in the lock, and without any recitation stating such a limitation, it is stated that a component that is capable of being mounted in the lock can be used to disclose the aforementioned limitation. Where “mounted” is defined as to be placed on a suitable support, where the key of Liu is placed in a suitable support, i.e. the lock.

Additionally, the examiner states that the limitation “mounted in said operator during assembly of said lockset” (page 15, lines 9-17; page 16, lines 3-10) is considered a product by process type limitation, accordingly, when the structure recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent (MPEP 2112.01). Thus the structure of Liu is substantially identical to that of the claimed structure, and thus the claimed properties are inherent.

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Responding to the argument (page 15, line 18-page 16, line 2; page 16, line 18-page 17, line 4) that the Examiner's assertion of the use of a key as the turn-button misses the point, in that such a permanent attachment is not what is disclosed in Liu, the examiner states that there is a lack of a recitation in the claims that the turn-button is attached permanently in the operator, and thus there is no recitation in the claims that precludes the use of a removable turn-button.

Regarding the argument (page 17, line 5-page 18, line 11) of element number 210 of Liu is the shaft or "shank" and is distinctly separate from the blade portion 230, the examiner agrees. However, the appellant has misconstrued the rejection, the examiner used the blade portion of Liu in equating to that of the claimed shaft, and never referenced element 210 in the previous rejection. Accordingly, the blade portion of Liu extends from the head portion 220, and has a leading helical end portion 236 that engages an aperture 112 of the lock mechanism, which is substantially identical to that as claimed in the current claims.

In response to the argument (page 18, lines 12-page 19, line 17) that Liu does not disclose the leading helical end portion having a plurality of leading helical surfaces that taper and twist from a transition line of the shaft toward a tip end of the shaft, the examiner respectfully disagrees. It is stated that taper is defined as a gradual decrease and twist is defined as forming a spiral shape. Accordingly, the helical surface of Liu tapers in a manner such that the gradual decrease is from the radially outermost edge of the helical surface to the center axis or transition line, where the helical surface forms a spiral shape that extends to the distal end of the shaft, as shown in figure 6C. The examiner states the claims are absent of any direction to the helical surfaces taper and twist other than from a transition line, as there is a lack of direction for the

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transition line, as a result, the basis of the rejection is made with the transition line being that of the axis of the shaft with the helical surfaces taper and twist from the aforementioned center axis.

In regards to the argument (page 19, line 18-page 20, line 21; page 24, lines 5-16) that the plurality of leading helical surfaces of Liu do not smoothly transition between adjacent helical surfaces, the examiner respectfully disagrees. The inner surfaces of the helical transition between the distinct helical surfaces with smooth continual webs absent of any abrupt stops or jagged edges, thus a smooth transition between the helical surfaces, see figure 6C. Further, the helical surfaces are smoothed so that the helical surfaces smoothly transition for one to another, i.e., smoothly transition between adjacent helical surfaces. Addressing the argument of the Appellant that Liu expressly describes only one helical key blade, the examiner agrees; however, as the appellant is aware, a key blade is constructed of a plurality of surfaces to established the rectangular cross-section, and thus, a plurality of helical surfaces are used to establish the helical key blade. It is additionally stated the Appellant's specification is absent as to what is specifically defined as smoothly transition between adjacent helical surfaces, as from best understood of the Appellant's disclosure, i.e. figures 1 and 2, the smooth transitions are angled intersections, where the smooth transitions of Liu are substantially identical to that as shown in the Appellant's figures.

Examiner's answers to the Appellant's arguments in pages 21-23, line 6 have been addressed above.

Responding to the argument (page 23, lines 7-22) that Liu does not disclose means for facilitating self-alignment of the shaft of the turn-button with the aperture of the lock mechanism, the examiner respectfully disagrees. As stated in the rejection, Liu discloses "in an

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open-lock operation, the protrusion 216 of the key is firstly inserted into the positioning slot 114 provided in the center of the front end of the lock core 110 for positioning and facilitating insertion of the key. Each end of the helical key blade is then aligned with the entry of the keyway.” The Appellant has mischaracterized the passage by assuming the passage does not include the helical key blade, the examiner states the final sentence of the passage explicitly states the alignment of the helical surfaces via the helical key blade. Additionally, as the claim is directed towards alignment and not insertion, Liu discloses the limitation substantially as claimed, as the spiral design of the shaft of Liu can only be inserted in a proper way, and thus due to the congruent shapes of the shaft and aperture, the turn-button self-aligns to correctly unlock the lock mechanism.

Examiner’s answers to the Appellant’s arguments in pages 24, line 17-page 25, line 11 have been addressed above.

Regarding the argument the arguments directed towards claims 11 and 17 (page 25, line 12-page 28, line 11) where the Appellant misconstrued the rejection, specifically, the Appellant alleges the rejection is made with a combination of the lock assembly of Liu and the door handle of Hurdle, which is incorrect. The examiner established the rejection with the locking assembly of Liu, where Liu is absent of the environment the locking assembly is applied. Hurdle is then used to teach of the use of a locking assembly applied to a door handle or door lever, and thus Hurdle teaches of an environment to which the lock assembly of Liu is utilized. Accordingly, there is not significant change to any structure, and function, as all that would be necessary is a door knob or door lever to accept the locking assembly of Liu, to achieve the predictable results of a door knob or door lever to securely lock a door, any standard door knob or door lever

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available at any home improvement center or hardware store would be an obvious environment to use.

Additionally responding to the argument that the proposed configuration of Liu (page 26, line 21-page 27, line 10) as described in the rejection does not provide the claimed “said shaft of the said turn-button extending from the head portion through said one of said one of door knob and said door lever to engage said aperture of said lock mechanism”, the examiner respectfully disagrees. The Appellant specifically argues the shaft of the turn-button extends through the door knob, where, as alleged by the Appellant, the lock cylinder of Hurdle extends to the outside of the door knob, the examiner states this assumption is incorrect. As well known in the art, lock cylinders are disposed within door handles, with only the face of the key cylinder, which contains the keyway, is on the outside of the door handle. Additionally, the claims are absent of any recitation to the general location of lock mechanism. Accordingly, the turn-button of Liu has a shaft that extends into a lock mechanism, and a lock mechanism is disposed within a door handle, and thus, the shaft would extend through the door handle to engage the locking components of the lock mechanism which is disposed within the door handle.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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/Christopher Boswell/

Examiner, Art Unit 3673

/Peter M. Cuomo/

Supervisory Patent Examiner, Art Unit 3673

Conferees:

/MJ/ Marc Jimenez TQAS TC 3600

Peter M. Cuomo /pmc/